I-TECH
MEDICAL DIVISION

User manual

MNPG89 Rev. 01 Edition 04/05/15

Pressotherapy model

LymphoPress 4

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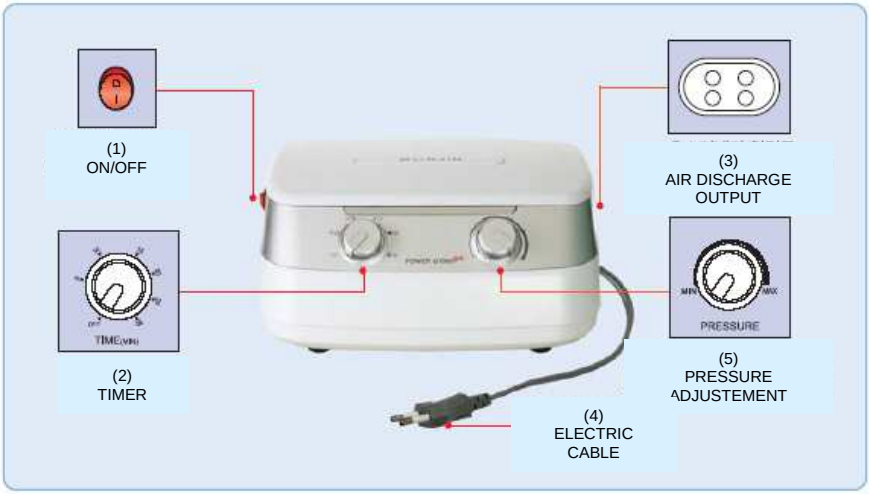
Pressotherapy

Compressive limbs therapy is able to promote a right venous circulation by decreasing muscle tension caused by stress or chronic and acute pains: thanks to its pump action it favorites venous return by increasing tissues blood circulation and finally their physiological renewal.
Compressive limbs therapy can solve blood stagnation problem in damaged sanguine vessels or in body zones not correctly bedewed.
External compression allows excess interstitial fluids to return in circulatory system in order to be quickly removed.
Most common applications are:

- Body massage increase;
- Blood flow promotion thanks to a slow and progressive pressure;
- Lymphatic drainage;
- Lower limbs relief and comfort;
- Substances stagnation prevention in peripheral tissues;
- Blood insufficiency prevention caused by an inadequate pump action;
- Muscle tone loss in disabled or paralyzed patients. Compressive limbs therapy substitutes the manual massage for trophic purposes.

Machine body and accessories



(13)
SPECIAL SPLITTER FOR SIMULTANEOUS THERAPY ON BOTH LEGS AND ABDOMINAL BAND

Accessories size

Legging:

- *Length around 76 cm (from upper side to heel)*
- *Thigh circumference around 65*
- *Ankle circumference around 38 cm*

Armband:

- *Max. length around 86 cm*
- *Biceps circumference around 50 cm*
- *Wrist circumference around 36 cm*

Abdominal band:

- *Abdominal around 136 cm*
- *Height around 46 cm*
- *Velcro height around 31 cm*

Extensions:

- *Max. width around 13 cm*
- *Min. width around 6 cm*

Configurations

Lymphopress 4 can be supplied in 5 different versions:

LYMPHOPRESS 4 TOT – compressive limb therapy system comprising machine body, double legging (6), 2 derivations connection tubes (9), 2 pressure plantars (8), armband (11), abdominal band (12), 1 derivation connection tubes (10), special connector for simultaneous therapy on both legs and abdominal band (13).

LYMPHOPRESS 4 LEG2-ABD – compressive limb therapy system comprising machine body, double legging (6), 2 derivations connection tubes (9), 2 pressure plantars (8), abdominal band (12), 1 derivation connection tubes (10), special connector for simultaneous therapy on both legs and abdominal band (13).

LYMPHOPRESS 4 LEG2 – compressive limb therapy system comprising machine body, double legging (6), 2 derivations connection tubes (9), 2 pressure plantars (8).

LYMPHOPRESS 4 LEG1 – compressive limb therapy system comprising machine body, single legging (6), 1 derivation connection tubes (10).

LYMPHOPRESS 4 ARM1 – compressive limb therapy system comprising machine body, armband (11), 1 derivation connection tubes (10).

Extensions for wide legs (7) and special connector for simultaneous therapy on both legs and abdominal band (13) are available as accessories.
Single accessories are available as optional to complete Lymphopress 4 content and potentiality.

Specifications

Lymphopress 4 has the following specifications:

- *Class IIa equipment (Directive 93/42/EEC, annexed IX, rule 9);*
- *Class II, applied part type BF (Classif. CEI EN 60601-1);*
- *CE0476 certificate;*
- *Equipment not protected against liquids penetration;*
- *Equipment and accessories not subjected to sterilization;*
- *Use of the equipment is prohibited close to flammable substances or in environments with high concentrations of oxygen;*
- *Continuous operating mode equipment;*
- *Equipment not suited to be used in external.*

Technical Specifications

Power Supply	220-240 VAC, 50-60 Hz	**Therapy time**	Impostabile 0÷30 min.
Current	0,2 A	**Max pressure**	300 mm Hg (±10%)
Max output power	25 W	**Weight**	2 Kg

Purpose

Clinical Purpose: *Therapeutic*
Use: *Clinic and domestic use*

Labels

CE 0476	**Compressible Limb Therapy System**		
	Model	**LYMPHOPRESS 4**	
Voltage	**AC220~240V**	**Frequency**	**50/60Hz**
Maximum output power	**50VA**	**Maximum pressure**	**300mmHg±10%**
	I.A.C.E.R srl **Via Sandro Pertini 24/A** **30030 Martellago (VE), Italy**		**I-TECH MEDICAL DIVISION**

	Warning
	Product subject to WEEE regulations concerning separate waste collection of electronic equipment
	Applied part type BF
	Class II equipment
	Compliance with Directive 93/42/EEC
	Manufacturing date

	Attention, consult operating instructions
	Instructions for use
IP21	Device with IP21 level protection
	Not protected against liquids entrance, keep dry.
	Relative humidity for product storage
	Temperature range for product storage
	Pushing prohibited
	Sitting prohibited
	Stepping prohibited

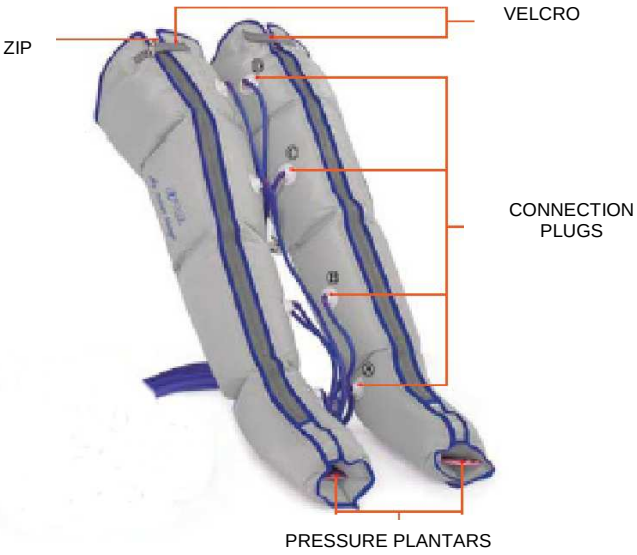
Working instructions

1) Connect cable to the domestic plug 220-240 VAC, then turn ON (1) the ON/OFF switch (1);

2) Wear the applicators

   a) *<u>Leggings use</u>*

      i) *Wear the leggings (or single legging) and close the zip up to the end, then close the retaining Velcro straps; in case of wide circumferences legs, connect the extensions available as accessories;*



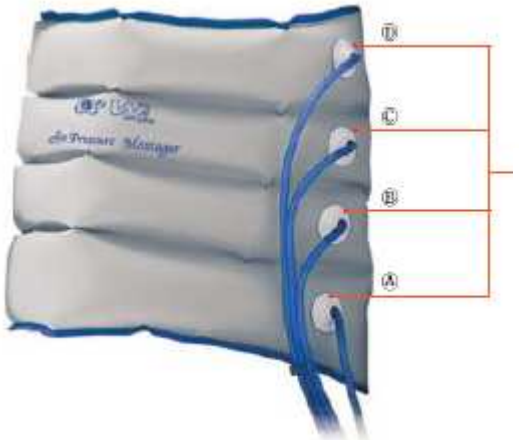
      i) *Insert the pressure plantars under the feet (available only with double leggings);*

      ii) *When wearing the leggings pay attention to position the tubes connection cables in the internal side of each legging; in single legging version connection cables position is not important;*

      iii) *Connect 4 tubes to the 4 plugs positioned on each legging, paying attention to connect the longer tube to the higher position connector (darker color) of legging (thigh);*

iv) After connecting the tubes to the relatives leggings, connect the tubes to the air discharge output (5).

b) <u>Abdominal band use</u>



i) Wear the band and connect the tubes to the band plugs, paying attention to connect the longer tube to the higher position connector on abdominal band;

ii) After connecting the tubes to the band, connect the tubes to the air discharge output (5).

b) <u>Simultaneous use of double leggings and abdominal band</u>

i) Connect the special splitter for simultaneous therapy (13) to the air discharge output (5). Then connect double leggings and abdominal band connectors to the splitter;

ii) *Wear the leggings (or single legging) and close the zip up to the end, then close the retaining Velcro straps; in case of wide circumferences legs, connect the extensions available as accessories;*

iii) *Insert the pressure plantars under the feet (available only with double leggings);*

iii) *When wearing the leggings pay attention to position the tubes connection cables in the internal side of each legging; in single legging version connection cables position is not important;*

iv) *Connect 4 tubes to the 4 plugs positioned on each legging, paying attention to connect the longer tube to the higher position connector (darker color) of legging (thigh);*

iv) *After connecting the tubes to the relatives leggings, connect the tube to the splitter connected to the air discharge output (13);*

v) *Wear the band and connect the tubes to the band plugs, paying attention to connect the longer tube to the higher position connector on abdominal band;*

vi) *After connecting the tubes to the band, connect the tubes to the splitter connected to the air discharge output (13).*

c) *<u>Armband use</u>*

i) *Wear the armband and connect the tubes to the armband plugs, paying attention to connect the longer tube to the higher position connector (darker color) on armband;*

ii) *After connecting the tubes to the armband connect the tubes to the air discharge output (5).*

3) Therapy time (selector (2) on machine body)
   a) *Therapy time can be adjusted from 0 to 30 minutes: pump motor of main body will start operating;*
   b) *The air will fill up in applicator chambers in 2 minutes.*

Attention: The time selector cannot be moved counterclockwise during the treatment. Please wait the session end to adjust a new therapy time

4) Pressure regulator (selector (3) on machine body)
   c) *Air pressure in compression chambers can be adjusted from 0 to maximum pressure (around 300 mmHg ± 20%) by rotating the knob in clockwise;*
   a) *Start the treatment with a middle pressure and increase it progressively according to your needs.*

Troubleshooting

Problem	Solution
LymphoPress 4 doesn't switch on	• Check the connection to the domestic plug • Check the ON/OFF button • Check the power supply status (no sign of damages)
LymphoPress 4 emits a strange sound like air leakage	• Check if there are any damages and/or holes in the tubes and connectors • Check the applicators right connection to the main body • Check if the tubes are pressed or bent
There is no pressure or the air doesn't go into the applicators	• Check the applicator right connection to the main body • Check if the tubes are pressed or bent • Check if the compression chambers swell up in a progressive way
Air goes into the compression chambers and/or an air leakage is present in the applicators	• Check if there are any holes or damages in the compression chambers. If there are not any air leakages, switch off the device then switch on it and re-check the right working

ATTENTION: with Lymphopress 4 double leggings version, always connect both leggings to the connection tube even if you use only one legging during the treatment.

Warnings

The following warnings guarantee user safety and prevention against damages and/or lesions.
Please read it carefully before using LymphoPress 4.

Warning

In case of not following the instructions the user may suffer from serious injuries

Caution

In case of not following the instructions the user may suffer from injuries or device damages

Indications

Prohibition indication

Pay attention

This is an indication for not disassembling

Disconnect the cable from domestic plug

Danger

Do not use the device in presence of acute inflammations or injuries. Infections risk.

Please consult the doctor in case of cancer, intestinal problems, fractures, acute thrombosis and other invalidating pathologies

Do not use the device if you feel pain or bad feelings.

Do not exceed 20 minutes in the first treatments. We suggest to start with treatments of 5/10 minutes.

Use only in consenting adults

Attention do not spill liquids or any substances on the device. Liquid penetration could damage the device.

In case of suspected malfunctioning do not open or repair the device. Do not use the device. Electric shock risk. Contact the distributor or fabricant.

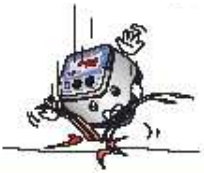
Do not connect or disconnect the device from domestic plug with wet hands. Electric shock risk.

Use the device only with 220V power supply. Electric shock risk. Disconnect the device from domestic plug when not in use.

Do not press, bend or damage the electric cable. Electric shock risk.

Avoid to connect more devices to the same multiple plug. Overheating risk.

Avoid device hits or drops.



⚠ Cautions

Do not move when the device is working.

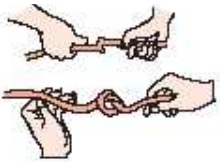
Do not expose the device to the sun and do not storage it next to heat sources.

Do not place any objects on the device or on its parts (connector tubes, applicators, etc.).

If you not use the device for a long time or if you use the device in cold places, a malfunctioning may happen: make it operating by changing progressively the intensity for 3-4 times.

Clean the device using a dry soft cloth. Do not use cleaning solvents or other chemical substances in order to avoid any damages.

Do not bend or tie the connection tubes.



Use the device only for expected purposes.

Product subject to WEEE regulations concerning separate waste collection of electronic equipment.

Cleaning

Clean the device and its accessories using a soft cloth.
Resistant stains can be removed using a sponge soaked in solution of water and mild soap.
Wait for the complete drying before using the device and its accessories.
Do not use chemical substances, solvents or cleaners to avoid device and accessories damage.

Maintenance, carriage and storage

If it is used in accordance with the instructions of the user manual, the device does not need a particular regular maintenance.

Carriage precautions
It doesn't need any particular carriage precautions: however we recommend to put away Lymphopress 4 and its accessories in their own box after every treatment.

Storage precautions
Lymphopress 4 is protected till following environmental conditions.

Outside of the packaging		
	temperature	from +5 to + 40 °C
	humidity	from 30 to 80%
	pressure	from 500 to 1060 hPa
Inside of the packaging		
	temperature	from –10 to +55 °C
	humidity	from 10 to 90%
	pressure	from 500 to 1060 hPa

Disposal

The equipment is subjected to WEEE regulations (see the symbol on the label) concerning separate waste collection: when disposing this product, please use the designed areas for disposing electronic waste or contact the manufacturer.

Assistance

Every intervention on device must be performed by manufacturer. For any assistance intervention contact the national distributor or:

I.A.C.E.R. S.r.l.
Via S. Pertini, 24/a • 30030 Martellago (VE) -ITALY
Tel. 041.5401356 • Fax 041.5402684

You can get any technical documentation on spare parts but only prior business authorization.

Spare parts

Contact the distributor or the fabricant for original spare parts at following address:

I.A.C.E.R. S.r.l.
Via S. Pertini, 24/a • 30030 Martellago (VE)
Tel. 041.5401356 • Fax 041.5402684

To preserve product warranty, functionality and product safety we recommend to use only original spare parts.

Warranty

Make reference to the national laws for any warranty conditions by contacting the national distributor (or directly the manufacturer IACER).

EMC Tables

Guidance and MANUFACTURER'S declaration – ELECTROMAGNETIC EMISSIONS – FOR ALL THE EQUIPMENT AND THE SYSTEMS		
LYMPHOPRESSS 4 is intended for use in the electromagnetic environment specified below. The customer or the user of the LYMPHOPRESS 4 should assure that it is used in such an environment.		
Emission test	**Compliance**	**Electromagnetic environment – guidance**
RF emissions Cispr 11	Group 1	LYMPHOPRESS 4 uses RF energy only for its internal function. Therefore, its RF emissions are very low and are not likely to cause any interference in nearby electronic equipment
RF emissions Cispr 11	Class B	LYMPHOPRESS 4 is suitable for use in all establishments, including domestic establishments and those directly connected to the public low-voltage power supply network that supplies buildings used for domestic purposes.
Harmonic emissions IEC 61000-3-2	Class A Complies	The LYMPHOPRESS 4 is suitable for use in all establishments, other than domestic establishments and those directly connected to the public low voltage power supply network that supplies buildings used for domestic purposes
Voltage fluctuations/ flicker emissions IEC 61000-3-3	Complies	

Guidance and MANUFACTURER'S declaration – ELECTROMAGNETIC IMMUNITY – FOR ALL THE EQUIPMENT AND THE SYSTEMS			
LYMPHOPRESS 4 is intended for use in the electromagnetic environment specified below. The customer or the user of LYMPHOPRESS 4 should assure that is used in such environment.			
Immunity test	**Test level EN 60601-1-2**	**Compliance level**	**Electromagnetic environment – guidance**
Electrostatic discharge (ESD) EN 61000-4-2	± 6kV contact ± 8kV air	± 6kV contact ± 8kV air	Floors should be wood, concrete or ceramic tile. If floor are covered with synthetic material, the relative humidity should be at least 30%

Electrical fast transient/burst IEC 61000-4-4	± 2kV for power supply lines	± 2kV per power supply lines	Mains power quality should be at that of a typical commercial or hospital environment.
Impulses EN 61000-4-5	±1kV differential mode	±1kV differential mode	Mains power quality should be at that of a typical commercial or hospital environment.
Voltage dips, short interruptions and voltage variations on power supply input lines IEC 61000-4-11	< 5% U_T (>95% dips of U_T) per 0,5 cycles 40% U_T (60% dips of U_T) per 5 cycles 70% U_T (30% dips of U_T) per 25 cycles < 5% U_T (>95% dips of U_T) per 5 seconds	< 5% U_T (>95% dips of U_T) per 0,5 cycles 40% U_T (60% dips of U_T) per 5 cycles 70% U_T (30% dips of U_T) per 25 cycles < 5% U_T (>95% dips of U_T) per 5 seconds	Mains power quality should be at that of a typical commercial or hospital environment. If the user of the LYMPHOPRESS 4 requires continued operation during power mains interruptions, it is recommended that LYMPHOPRESS 4 be powered from an uninterruptible power supply or a battery.
Mains power electromagnetic field EN 61000-4-8	3 A/m	3 A/m	Mains power quality should be at that of a typical commercial or hospital environment.

Guidance and MANUFACTURER'S declaration – ELECTROMAGNETIC IMMUNITY – FOR ALL THE EQUIPMENT AND THE SYSTEMS THAT ARE NOT LIFE-SUPPORTING

LYMPHOPRESS 4 is intended for use in the electromagnetic environment specified below. The customer or the user of LYMPHOPRESS 4 should assure that is used in such environment

Immunity test	Test level EN 60601-1-2	Compliance level	Electromagnetic environment – guidance
Conducted RF EN 61000-4-6	3 Veff from 150kHz to 80MHz	3 Veff from 150kHz to 80MHz	**Portable and mobile RF communications equipment should be used no closer to any part of LYMPHOPRESS 4, including cables, than the recommended separation distance calculated from the equation applicable to the frequency of the transmitter.** **Recommended separation distance:** **d = 1,2 ·√P 150kHz to 80MHz** **d = 1,2 ·√P 80 MHz to 800 MHz** **d = 2,3 ·√P 800 MHz to 2,5 GHz** where (P) is the maximum output power rating of the transmitter in Watts (W) according to the transmitter manufacturer and (d) is the recommended separation distance in metres (m).
RF Radiata EN 61000-4-3	3 Veff from 80MHz to 2,5GHz	3 Veff from 80MHz to 2,5GHz	

Field strangths from fixed RF transmitters, are determined by an electromagnetic site survey, should be less than the complicance level in each frequency rage.
Interference may occur in the vicinity of equipment marked with the following symbol:

Recommended separation distances between portable and mobile communications equipment and the EQUIPMENT

LYMPHOPRESS 4 is intended for the use in an electromagnetic environment in which radiated RF disturbances are controlled. The customer or the user of LYMPHOPRESS 4 can help prevent electromagnetic interferences by maintaining a minimum distance between portable and mobile RF communications equipment (transmitters) and LYMPHOPRESS 4 as recommended below, according to the maximum output power of the communication equipment.

Rated maximum power of the transmitter (W)	Separation distance according to the frequency of the transmitter (m)		
	150kHz to 80MHz d = 1,2 ·√P	80MHz to 800MHz d = 1,2 ·√P	800MHz to 2GHz d = 2,3 ·√P
0,01	0,12	0,12	0,23
0,1	0,38	0,38	0,73
1	1,2	1,2	2,3

10	3,8	3,8	7,3
100	12	12	23

For transmitters rated at a maximum output power not listed above, the recommended separation distance d in metres (m) can be estimated using the equation applicable to the frequency of the transmitter, where P is the maximum output power rating of the transmitter in Watts (W) according to the transmitter manufacturer.

Note:
(1) At 80 MHz and 800 MHz the separation distance for the higher frequency range applies.
(2) These guidelines may not apply in all situations. Electromagnetic propagation is affected by absorption and reflection from structures, objects and people.

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